5. Environmental Setting, Impacts and Mitigation Measures

This chapter begins the impacts analysis of this EIR. For each grouping of topics, the focus of inquiry is the same — are the primary or secondary physical environmental effects of the project significant, and can they be mitigated to an insignificant level?

As discussed in the Introduction to this EIR, this EIR will not engage in repetitive discussions of issues resolved in previous EIRs. The reader will, therefore, be referred to the appropriate public document where incorporation by reference, pursuant to CEQA Guidelines §15150, is used. However, a few summary remarks may be made to help relate the data relied upon in this EIR to the impact discussion at hand.

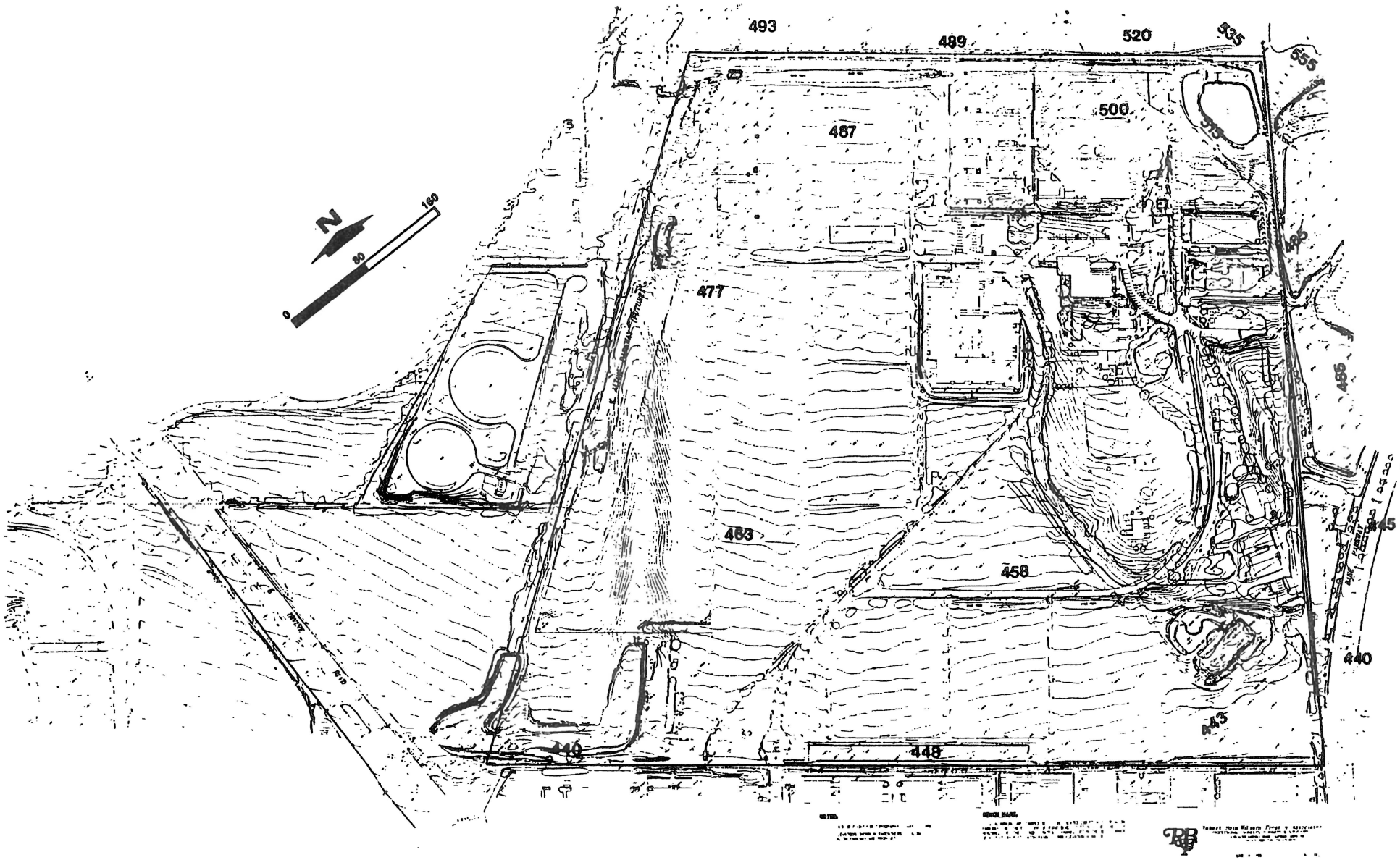
In considering data from prior EIRs, it is important to remember that many impact areas considered were based on *projections* of impact. The new housing unit design which has been constructed at the Theo Lacy Jail in Orange and the Intake and Release Center (IRC) in Santa Ana offers the opportunity to determine security performance for maximum security inmates, as maximum security inmates have been housed at the Theo Lacy Jail since April 15, 1994. Maximum security inmates have been housed at the Intake and Release Center (IRC) since January, 1988. Therefore, with respect to security considerations, this EIR will actually document the *observed* behavior of the facility, as opposed to forecasting its effects.

5.1 Landform, Soils and Geology

5.1.1 Environmental Setting

Final EIR 447 for the James A. Musick Facility Master Plan (1986) reported extensively on soils, geology, seismicity and liquefaction (pages 4-1 to 4-4). That EIR's technical discussion was based on a 1985 report by Converse Consultants, a geotechnical engineering and applied sciences firm in Santa Ana. The text of the Musick EIR with respect to existing conditions is incorporated herein by reference. The Alton Parkway Project Report of 1991 is also helpful in analyzing the extension of Alton Parkway and is incorporated herein by reference. Existing topography, with selected elevations noted, is shown in Exhibit 9.

As noted in that EIR, the Musick Jail site is relatively flat, with a localized highland in the northeastern portion. The difference in elevation across the property is approximately 82 feet. Borrego Wash lies to the west/northwest of the property and will ultimately be separated from the jail facility by the future extension of Alton Parkway. Groundwater was not encountered in any of the known borings on the site to a depth of 45 feet below the ground surface.



EXISTING TOPOGRAPHY

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EXHIBIT 9

Some well data in the area indicates groundwater levels at some 30 feet below the surface, but even if this is the case in the Musick Jail site, this would not pose a construction constraint. In fact, even if groundwater were found at a very shallow level, the only impact to address in that case is liquefaction, a phenomenon experienced during seismic events where the soil is water saturated and loosely packed, and significant ground shaking occurs. However, even in the case of a potential for liquefaction for a building, pile-driven footings are the recognized building construction technique to eliminate impacts in this area.

New studies by the Department of the Navy for remediation of an old landfill on the MCAS-El Toro property northwest of the jail site are currently underway. Preliminary results indicate a confined area for the landfill, with subsurface contamination extending only a small distance from the original landfill site. However, a portion of the subsurface contamination which has travelled from the landfill is located on the jail site, at the extreme northwest corner and within the easement for Alton Parkway. The area of contamination lies northeast of the future entrance to the jail and within an area which will continue to be used for agriculture. The remediation is funded, and clean-up should commence in approximately one year.[16] Therefore, this feature will not conflict with the jail as proposed, but will delay the extension of Alton Parkway as contemplated in the Foothill Circulation Phasing Plan (FCPP).

5.1.2 Project Impacts Prior to Mitigation

There are no specific impacts in the area of groundwater or geology as a result of the jail. The types of soils that underlie the site are mainly alluvial and terrace deposits, with some clay content. The main impacts with respect to clay content are soil consolidation and expansivity. However, these are standard conditions in the area of Orange County, and there is nothing unique on the Musick site to suggest that standard construction techniques will not eliminate any significant effects.

There will be landform alteration associated with the implementation of the facility plan as shown, particularly in the eastern and northeastern quadrants of the site, where building heights would otherwise be limited to 16 to 43 feet due to height restrictions which could be otherwise imposed to aircraft operations, either military or civilian. Other than the landform modification necessary to prepare the site in the southerly and southwesterly portions, the grading operations on-site will consist of cut of higher ground.

Grading for the expansion program will involve approximately 380,000 cubic yards of cut. Some of the cut may be relocated on-site to agricultural fields for soil supplementation, or for foundation compaction in the southerly portions of the site. However, the vast majority of cut will be necessary for the construction of Alton Parkway. Grading volumes are shown in Exhibit 10.

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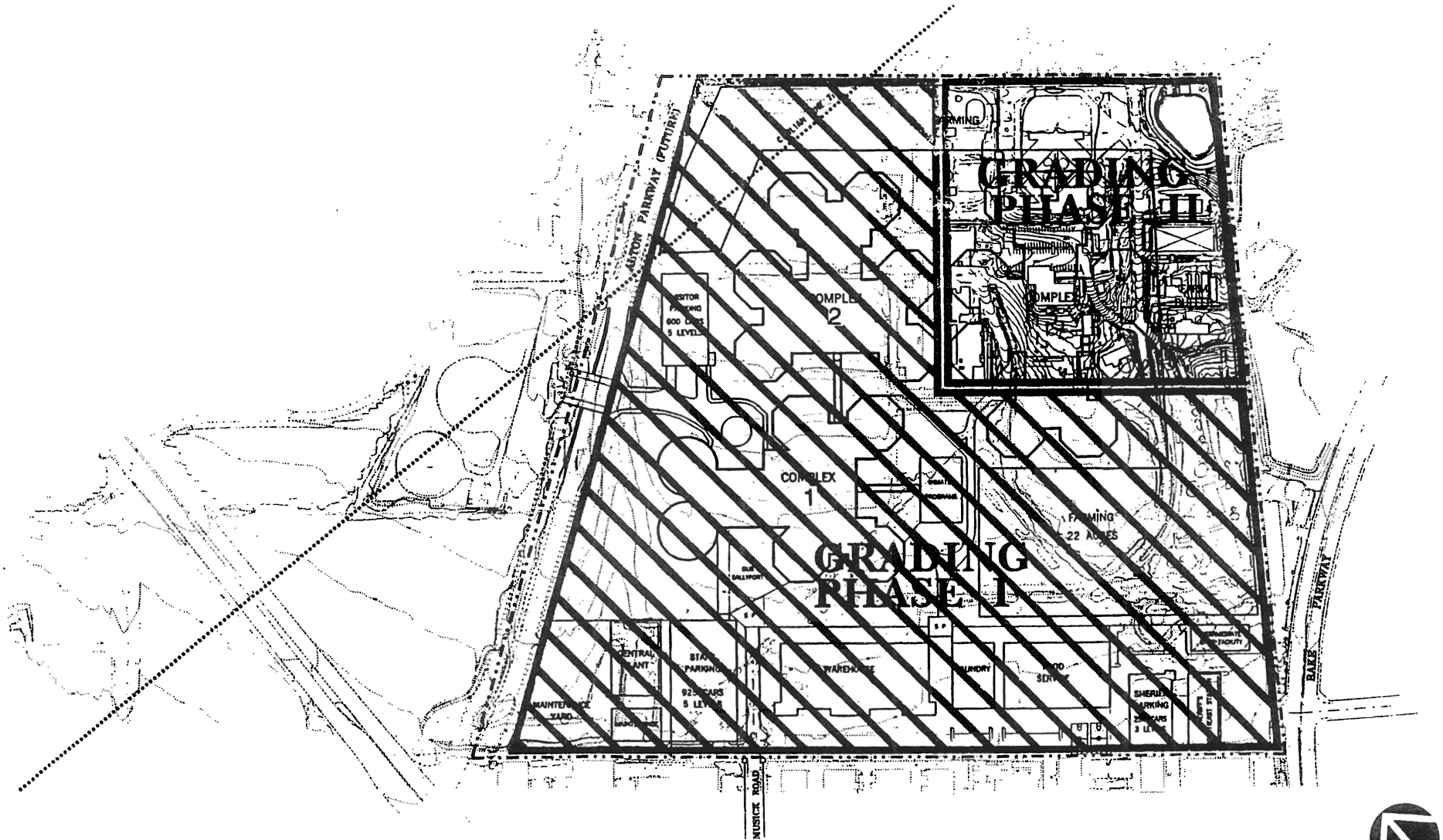
[16]Personal communication, Ann Dotson, MCAS-El Toro; 7/12/96.



JAMES A. MUSICK FACILITY EXPANSION

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GRADING

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EXHIBIT 10

Alton Parkway's approved full-width improvements require the enclosure of approximately 1,600 feet of Borrego Wash in a storm drain. This requires fill dirt. Although some years ago it was contemplated that this fill could be obtained from adjacent areas, including the MCAS-El Toro property, the inclusion of much of the base property in the Natural Communities Conservation Plan on either side of the alignment has limited the County's ability to obtain the necessary fill. The Alton Parkway Project Report identifies an earthwork imbalance (shortage) along the alignment in any event, and therefore the previously unanticipated source of earth from the Musick site constitutes a financial benefit to the construction of this road.[17]

If for some reason Alton Parkway is not extended by the County, or if it is relocated, only half-width improvements of Alton Parkway to the jail entrance may be constructed. In this case, it is unlikely that the cost of enclosing Borrego Wash in a storm drain would be justified. The half-width improvements would still require some adjustment to the wash, as well as protective improvements (e.g., rip rap) to safeguard the road. In the event this occurs, the amount of fill needed would be reduced, and the earthwork on the Musick site would be a surplus.

In this latter case, because of the relatively small amount of cubic yardage, there are several options. First, the dirt could be relocated on-site. A fill of 150,000 cubic yards in the area of Complexes 1 and 2 would result in raising the site approximately 3 to 4 feet. This is a relatively small amount. The remaining surplus in the area of Complex 3 could be placed on agricultural fields on-site (since agricultural areas typically suffer from soil loss) or offered to nearby agricultural areas to the west. In any event, the transport of export fill on public streets — the major environmental impact of an earthwork imbalance — is not anticipated in this case.

Seismicity is a common concern in the Southern California area. Since 1973, the Uniform Building Code has required specialized construction techniques to allow buildings to withstand a ground acceleration rate of a certain level, roughly equating to an earthquake of 7.0 on the Richter scale. However, with respect to jail construction, the state requires Class A construction, the strongest and most secure construction for a building. This precaution further ensures the facility itself against catastrophic damage, avoids injuries to the inmates and personnel within the jail, and virtually eliminates the risk of escape in an emergency. Although the Interim Care Facility, the Sheriff's Southeast Station and the Warehouse are not held to the higher Class A construction standards, they are built using the standard construction methodology in effect since 1973. This makes these buildings as safe as any other post-1973 building built in the Orange County area.

The soils on site are shown as partially "prime farmland" and partially "urban and built up land" on the State Department of Conservation Farmland Mapping and Monitoring Program map. The definition of "prime farmland" states that the farmland must have been used for the production of irrigated crops at sometime during the past two update cycles

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[17] Alton Parkway Project Report; RBF, 1991; at page 6.

prior to the mapping date. Most of the land to be used for buildings at the Musick site falls into this category.

However, the apparent reason why the "urban and built-up" land designation was applied to the remainder of the site was that the current jail facilities were located there. Under the proposed project, this land would, for the most part, be returned to agricultural production. There would still be a loss of prime farmland, however, to the extent of approximately 33 acres in the buildout condition.

The loss of this agricultural land on the Musick site has already been considered in Final EIR 447 (1986) for the earlier Musick Jail proposal. To the extent that there are impacts from the current proposal, as to agricultural land they are no different than those of the 1986 proposal. Therefore, CEQA §21166 allows reliance on that prior EIR for impact assessment.

It is not believed that the impacts will be significant in the area of agricultural uses in any event. The "exchange" of land within the site, as well as the FEIR 447 proposal to expand Musick agricultural uses to 12 to 15 acres north of the current site (now military base land), compensates for any loss. The NCCP (Natural Communities Conservation Plan) EIR and Plan actually accommodates agricultural uses on 12 to 15 acres north of the site. Therefore, no significant impacts or conflicts with either agricultural uses or resource protection policies will occur as a result of this project.

Another offsetting factor is that the Local Redevelopment Agency (LRA) has recently recommended the approval of a conveyance of 40 acres of agricultural use on the MCAS-El Toro to the north and west of this site (of which 12 to 15 acres is the land referred to in the preceding paragraph). This acreage, taken together with the 20+ acres to be provided on the Musick site, exceeds the acreage occupied by the new buildings.

It is common for a project to be subject to a preliminary geotechnical assessment at the approval level, and a final detailed geotechnical assessment prior to construction. The final geotechnical report makes recommendations for foundation design based on the structural architect's preliminary drawings. Therefore, since the geotechnical consultant requires further information from the design architect to ascertain the exact nature of recommendations, this is an appropriate study to occur at a later date. It is very rare that such a study has any appreciable effect on design or layout of the buildings, aside from the technical construction aspect.

5.1.3 Mitigation Measure

1. *Prior to the issuance of construction bid documents for any permanent construction at the Musick Jail, the County shall cause to be prepared a final geotechnical report. This report shall be approved by the County's Planning and Development Services entity at that time as to content. Recommendations of the engineering geologist and soils*

engineer shall be incorporated into the project plans and specifications for the construction of the facility.

5.1.4 Level of Significance After Mitigation

No impacts are precipitated by the project. However, incorporation of the mitigation measure will ensure that no unanticipated impacts will occur, and that this issue is carefully monitored.